

## CLAIMS

What is claimed is:

5

1. A compact photovoltaic module comprising:

a) a plurality of radiation reflectors each comprising an asymmetric portion of a parabolic or similarly shaped surface, the plurality of radiation reflectors being serially arranged, and

10

b) a plurality of photovoltaic cells with each cell having a corresponding reflector for directing radiation to the cell, each cell being shielded from direct radiation by an adjacent reflector and with the corresponding reflector directing off-axis radiation to the cell.

2. The compact photovoltaic module as defined by claim 1 wherein each reflector  
15 comprises a formed material with a reflective surface.

3. The compact photovoltaic module as defined by claim 2 wherein the formed material is reflective.

20

4. The compact photovoltaic module as defined by claim 2 wherein the formed material includes a reflective coating.

5. The compact photovoltaic module as defined by claim 4 wherein the reflective coating comprises aluminum.

25

6. The compact photovoltaic module as defined by claim 4 wherein the reflective coating comprises silver.

7. The compact photovoltaic module as defined by claim 2 wherein all reflectors are  
30 formed as one unit.

8. The compact photovoltaic module as defined by claim 2 and further including a secondary reflector located at or near the focus of a radiation reflector for directing radiation to a corresponding cell.

9. The compact photovoltaic module as defined by claim 2 and further including an optical refractor with each cell.
- 5 10. The compact photovoltaic module as defined by claim 2 wherein each cell is located at or near the focus of its corresponding reflector.
11. The compact photovoltaic module as defined by claim 10 wherein each radiation reflector includes an appendage for the mounting of a cell corresponding to an adjacent  
10 reflector.
12. A radiation reflector array comprising a plurality of radiation reflectors arranged in rows and columns, each radiation reflector comprising an asymmetric portion of a parabolic or similarly shaped surface and directing radiation to or from a focus hidden behind an  
15 adjacent reflector with the radiation being off-axis with respect to the parabolic reflector.
13. The radiation reflector array as defined by claim 12 wherein material comprising the reflector array is reflective.
- 20 14. The radiation reflector array as defined by claim 12 where each reflector comprises a formed material with a reflective coating on a surface.
15. The radiation reflector array as defined by claim 14 wherein the reflective coating comprises aluminum.  
25
16. The radiation reflector array as defined by claim 14 wherein the reflective coating comprises silver.
17. The radiation reflector array as defined by claim 14 wherein all reflectors are formed  
30 as one unit.
18. The radiation reflector array as defined by claim 14 wherein each reflector transmits radiation to or from the focus of the radiation reflector.

19. The radiation reflector array as defined by claim 12 wherein a secondary reflector is located at the focus of the radiation reflector for directing radiation to and from the reflector.

20. The radiation reflector array as defined by claim 12 wherein each radiation reflector includes an appendage for the mounting of a receiver or transmitter.

21. For use in a compact array of radiation reflectors, a radiation reflector comprising a body having an off-axis portion of a parabolic or similarly shaped surface whereby radiation is directed to or from a focus of the reflector surface.

10

22. The radiation reflector as defined by claim 21 wherein the reflector comprises a formed material with a reflective coating on a surface of the formed material.

23. The radiation reflector as defined by claim 22 wherein the reflective coating comprises aluminum.

15

24. The radiation reflector as defined by claim 22 wherein the reflective coating comprises silver.

25. The radiation reflector as defined by claim 21 wherein the reflector comprises a formed reflective material.

20

26. The radiation reflector as defined by claim 21 and including an appendage for the mounting of a receiver or transmitter.

25